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PATENT APPLN. NO. 10/534,874
RESPONSE UNDER 37 C.F.R. §1.111

FEB 25 2008

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IN THE CLAIMS:

1. (currently amended) A liposome ~~to which a polyalkylene glycol and albumin are bonded~~ selected from the group consisting of:

(a) a liposome to which each of a polyalkylene glycol and a non-modified serum albumin is bonded, wherein the non-modified serum albumin is bonded to the liposome via a reactive intervening group;

(b) a liposome to which a serum albumin is bonded via a polyalkylene glycol, wherein the serum albumin is bonded to the polyalkylene glycol via a reactive intervening group; and

(c) a liposome wherein the liposome and a polyalkylene glycol are bonded to a serum albumin via reactive intervening groups at a different site.

2. (original) The liposome according to claim 1, wherein a physiologically active ingredient is further contained.

3. (original) The liposome according to claim 2, wherein the physiologically active ingredient is a pharmaceutically active ingredient.

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4. (original) The liposome according to claim 3, wherein the pharmaceutically active ingredient is an antitumor agent.

5. (previously presented) A pharmaceutical composition containing the liposome mentioned in claim 2.

6. (currently amended) The pharmaceutical composition according to claim 5, ~~which is an injection~~ wherein the composition is in an injection form.

7. (original) A method for treatment of cancer, which comprises administering a pharmaceutical composition comprising a liposome to which a polyalkylene glycol and albumin are bonded and in which an antitumor agent is contained.

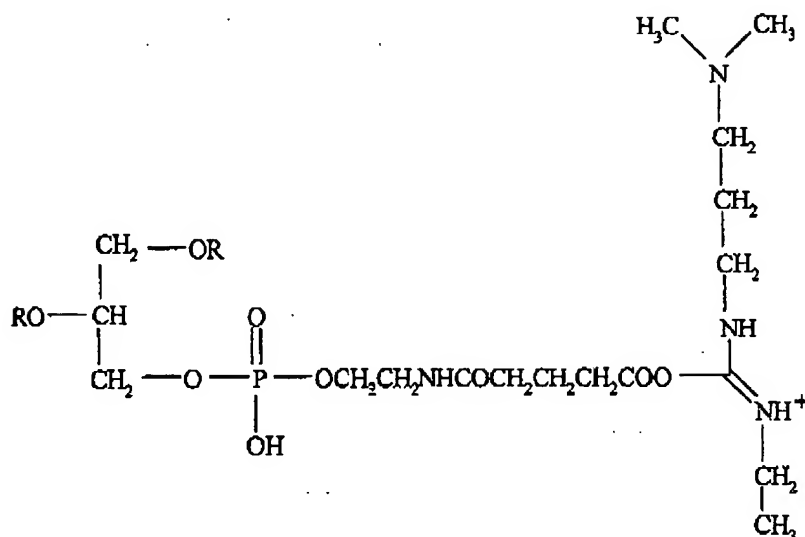
8. (previously presented) A method of extending the in vivo retention time of a physiologically active ingredient contained in a liposome comprising binding the liposome to a polyalkylene glycol and albumin.

9. (currently amended) A process for the production of the liposome ~~of claim 1, characterized in that~~ comprising,

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(A) a step of bonding a liposome having a compound represented by the following formula (1):



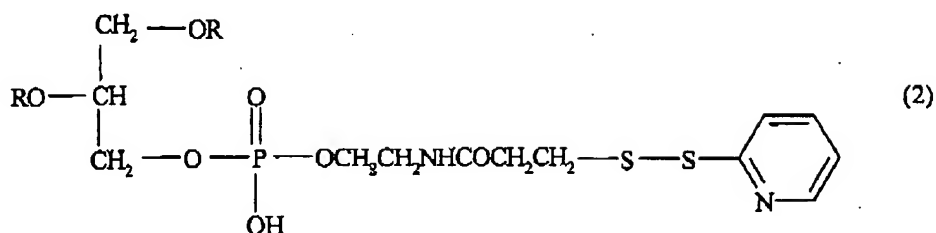
(1)

(wherein R is an acyl group derived from a fatty acid having 2 to 35 carbon atoms) ~~as a constituent lipid is bonded and 1,2-distearoyl-sn-glycero-3-phosphoethanolamine bonded to a polyalkylene glycol (PEG-DSPE) as constituent lipids to albumin;~~

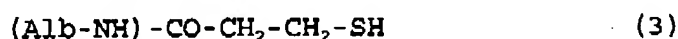
(B) a step of bonding a liposome having a compound represented by the following formula (2):

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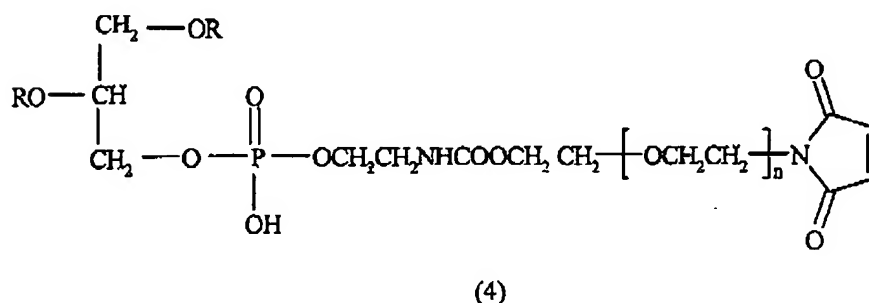


(wherein R has the same meaning as defined above) ~~as a constituent lipid is bonded and~~ 1,2-distearol-*sn*-glycero-3-phosphoethanolamine bonded to a polyalkylene glycol (PEG-DSPE) as constituent lipids to a compound represented by the formula (3):



(wherein Alb-NH is a group formed by removing one hydrogen atom of the amino group from an albumin molecule represented by Alb-NH₂);

(C) a step of bonding a liposome having a compound represented by the following formula (4):



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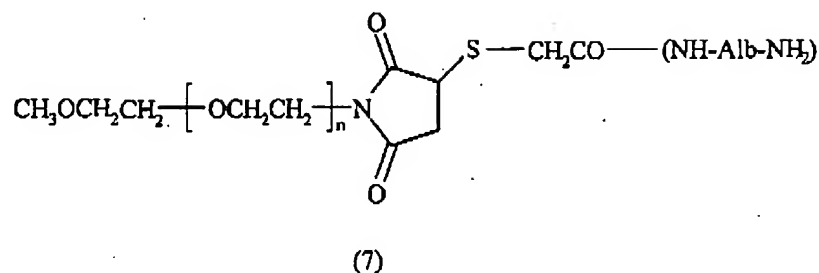
$$(\text{Alb-NH})-\text{CO}-\text{CH}_2-\text{SH} \quad (5)$$
$$\begin{array}{c}
 \text{CH}_2 - \text{OR} \\
 | \\
 \text{RO} - \text{CH} \\
 | \\
 \text{CH}_2 - \text{O} - \text{P}(=\text{O})(\text{OH}) - \text{OCH}_2\text{CH}_2\text{NHCO} \\
 | \\
 \text{OCH}_2\text{CH}_2 - \left[\text{OCH}_2\text{CH}_2 \right]_n - \text{N} \begin{array}{c} \diagup \text{C}(=\text{O}) \\ \diagdown \text{C}(=\text{O}) \end{array} \begin{array}{c} \text{S} - \text{CH}_2\text{CO} - (\text{NH-Alb}) \\ \diagup \end{array}
 \end{array}$$

(6)

(E) a step of bonding a liposome having the compound represented by the above formula (1) as a constituent lipid is bonded to a compound represented by the following formula (7):

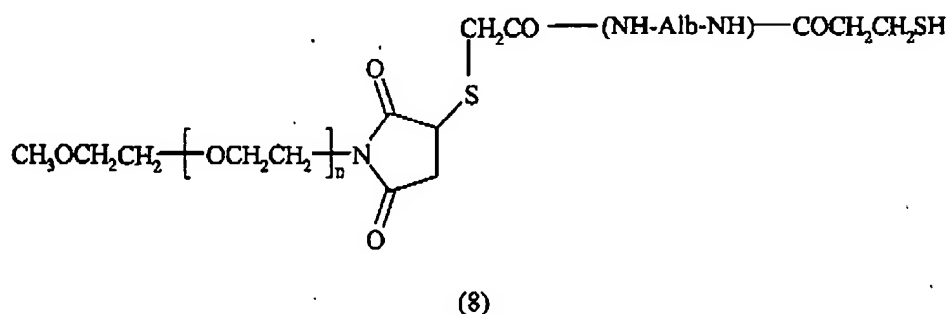
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(wherein $-\text{NH-Alb-NH}_2$ is a group formed by removing one hydrogen atom from one of the amino groups of an albumin molecule represented by $\text{H}_2\text{N-Alb-NH}_2$; and n has the same meaning as defined above); or

(F) a step of bonding a liposome having the compound represented by the above formula (2) as a constituent lipid is bonded to a compound represented by the following formula (8):



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(wherein -NH-Alb-NH- is a group formed by removing one hydrogen atom from each of the two amino groups of an albumin molecule represented by the formula $H_2N-Alb-NH_2$, and n has the same meaning as defined above).

10. (previously presented) A pharmaceutical composition containing the liposome mentioned in claim 3.

11. (previously presented) A pharmaceutical composition containing the liposome mentioned in claim 4.

12. (currently amended) The pharmaceutical composition according to claim 10, ~~which is an injection~~ wherein the composition is in an injection form.

13. (currently amended) The pharmaceutical composition according to claim 11, ~~which is an injection~~ wherein the composition is in an injection form.

14. (new) The liposome according to claim 1, wherein the liposome is the liposome (a) to which each of polyalkylene glycol and non-modified serum albumin is bonded, and

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the liposome comprises a lipid to which the polyalkylene glycol is bonded and a lipid to which the non-modified serum albumin is bonded via the reactive intervening group.

15. (new) The liposome according to claim 1, wherein the liposome is the liposome (b) to which the serum albumin is bonded via the polyalkylene glycol, and

the liposome comprises a lipid bonded to the polyalkylene glycol to which the serum albumin is bonded via the reactive intervening group.

16. (new) The liposome according to claim 1, wherein the liposome is the liposome (c) wherein the liposome and the polyalkylene glycol are bonded to the serum albumin via the reactive intervening groups at a different site, and

the liposome comprises a lipid bonded to the serum albumin to which the polyalkylene glycol is bonded via the reactive intervening group.